

FORM PTO-1449 U.S. DEPARTMENT OF COMMERCE
(Rev. 2-32) PATENT AND TRADEMARK OFFICE
(Modified)

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(Use several sheets if necessary)

ATTY. DOCKET NO.

UTSK:097/BAH

SERIAL NO.

07/313,911

APPLICANT

Shepherd, A. P. and Steinke, J. M.

FILING DATE

02/23/89

GROUP

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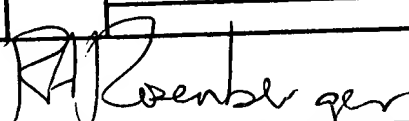
U.S. PATENT DOCUMENTS

EXAMINER INITIAL	REF.	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
<i>RAZ</i>		30,007	05/22/79	Steuer et al.			
<i>RAZ</i>		2,878,715	03/24/59	Rhees			
<i>RAZ</i>		3,296,922	01/10/67	Goldberg			
<i>RAZ</i>		3,527,542	06/15/66	Penhasi et al.	356	40	
<i>RAZ</i>		3,638,640	02/01/72	Shaw	356	41	
<i>RAZ</i>		3,692,410	09/19/72	Jurany et al.	356	46	
<i>RAZ</i>		3,764,267	10/09/73	Farr	356	40	
<i>RAZ</i>		3,799,672	03/26/74	Vurek	356	41	
<i>RAZ</i>		3,972,614	08/03/76	Johansen et al.	356	46	
<i>RAZ</i>		3,994,585	11/30/76	Frey	356	40	

FOREIGN PATENT DOCUMENTS

REF.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>RAZ</i>	AA ✓	J. W. Kiel and A. P. Shepherd, "A microcomputer oximeter for whole blood," Amer. J. Physiol., vol. 244, pp. H722-H725, 1983.
<i>RAZ</i>	AB ✓	J. M. Steinke and A. P. Shepherd, "Role of light scattering in whole blood oximetry," IEEE Transactions on Biomedical Engineering, vol. BME-33, no. 3, March 1986.
EXAMINER		
	DATE CONSIDERED	
	9 March 1990	

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RAM		4,003,662	01/18/77	Retzer et al.	356	40	
RAM		4,013,417	03/22/77	Raffaele	356	40	
RAM		4,057,394	11/08/77	Genshaw	356	40	
RAM		4,134,678	01/16/79	Brown et al.	356	40	
RAM		4,240,749	12/23/80	Retzer	356	40	
RAM		4,243,883	01/06/81	Schwarzmann	356	40	
RAM		4,301,412	11/17/81	Hill et al.	324	442	
RAM		4,303,887	12/01/81	Hill et al.	324	441	
RAM		4,308,029	12/29/81	Siggaard-Andersen	356	40	
RAM		4,324,556	04/13/82	Robertson et al.	356	40	

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							YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

RAM	AC	✓	N. M. Anderson and P. Sekelj. "Light-absorbing and scattering properties of non-haemolysed blood." Phys. Med. Biol., vol. 12, pp. 173-184, 1967.					
RAM	AD	✓	K. Kramer, J. O. Elam, G. A. Saxton, and W. N. Elam, Jr., "Influence of oxygen saturation, erythrocyte concentration and optical depth upon the red and near-infrared light transmittance of whole blood," Amer. J. Physiol., vol. 165, pp. 229-246, Apr. 1951					

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RAM Rosenberger

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<i>RAH</i>		4,357,105	11/02/82	Loretz	356	40	
<i>RAH</i>		4,444,498	04/24/84	Heinemann	356	41	
<i>RAH</i>		4,453,266	06/05/84	Bacus	356	39	
<i>RAH</i>		4,502,786	03/05/85	Golias et al.	356	435	
<i>RAH</i>		4,565,448	01/21/86	Abbott et al.	356	336	
<i>RAH</i>		4,605,305	08/12/86	Lenoir et al.	356	339	
<i>RAH</i>		4,651,741	05/24/87	Passafaro	356	41	
<i>RAH</i>		4,700,708	10/20/87	New, Jr. et al.	356	41	

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REF.	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSLATION	
						YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>EN</i>	AE	F. J. Janssen, "A study of the absorption and scattering factors of light in whole blood," <u>Med. Biol. Eng.</u> , vol. 10, pp. 231-240, 1972.
<i>RAH</i>	AF	D. L. Drabkin, "The crystallographic and optical properties of the hemoglobin of man in comparison with those of other species," <u>J. Biol. Chem.</u> , vol. 164, pp 703-723, 1946.

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RAH Renberger

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U.S. PATENT DOCUMENTS

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[illegible]

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

<div data-bbox="128 1432 248 1457" data-label="Text"> <p>RM</p> </div>	<div data-bbox="277 1432 337 1457" data-label="Text"> <p>AG</p> </div>	<div data-bbox="412 1432 1560 1457" data-label="Text"> <p>✓ Setsuo Takatani, Hiroyuki Noda, Hisateru Takano and Tetsuzo Akutsu, "Miniature Hybrid Reflection Type Optical Sensor for Measurement of Hemoglobin Content and Oxygen Saturation of Whole Blood," IEEE Transactions on Biomedical Engineering, vol. 34, no. 3, March 1988.</p> </div>
<div data-bbox="128 1461 248 1486" data-label="Text"> <p>RAI</p> </div>	<div data-bbox="277 1461 337 1486" data-label="Text"> <p>AH</p> </div>	<div data-bbox="412 1461 1560 1486" data-label="Text"> <p>✓ M. Singh and K. P. Joseph, "Optical method for haematocrit determination," Med. & Biol. Eng. & Comput., vol. 20, pp. 527-528.</p> </div>

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